

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
|-----------------|-------------|----------------------|---------------------|

09/677,226 09/29/00 HONDA

R 22.958-91

MM91/0425

JOHN F. KLOS  
LARKIN HOFFMAN DALY & LINDGREN LTD  
7900 XERXES AVENUE SOUTH #1500  
BLOOMINGTON MN 55431-3333

EXAMINER

HQ, T

ART UNIT

PAPER NUMBER

2821

DATE MAILED:  
04/25/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/677,226**

Applicant(s)

**Honda et al**

Examiner

**Tan Ho**

Group Art Unit  
**2821**



- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

- ☒ Claim(s) 1 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2821

## DETAILED ACTION

### *Drawings*

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### *Claim Objections*

2. Claim 1 is objected to because of the following informalities: In claim 1, line 5, "the a first" should be changed to --the first--; line 7, "a pair of the conductor trace elements" should be changed to --the pair of conductor trace elements-- if it is the pair of conductor trace elements defined in line 5. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (US Patent 6,107,967) in view of Zhang et al (US Patent 6,091,366).

Art Unit: 2821

Hill discloses, in figures 3A-3E, a small antenna for a communication device comprising a first dielectric substrate 120, a conductive trace 130 formed on a surface of the first dielectric substrate, a second dielectric substrate 110, and wherein the first dielectric substrate is perpendicular to the second dielectric substrate. The patent to Hill differs from the claimed invention because it does not teach an another conductive trace capacitively coupling to the conductive trace. Zhang et al discloses, in figure 3, an antenna device having a dielectric substrate 181, a conductive trace or antenna element 183, and a microstrip line 183 formed on a side of the dielectric substrate opposite to the antenna element. The patent to Zhang et al teaches that this antenna has operation performance equivalent to the antenna that is fed by a coaxial, good efficiency, good directivity, and stable impedance, see column 3, lines 22-32. For this reason, it would have been obvious to replace the coaxial transmission line of the patent to Hill with a microstrip line capacitively coupled to the antenna element as taught by Zhang et al.

5. The patent to Saari and Gans et al are cited as of interest showing the antenna similar to that disclosed.

### *Correspondence*

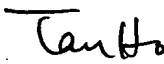
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tan Ho whose telephone number is (703) 308-4080.

7. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Art Unit: 2821

8. Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

Tan Ho  
April 19, 2001

  
TAN HO  
PRIMARY EXAMINER